

Claims

1. A video signal processing circuit is characterized by comprising:

5 analog/digital converting means, which is capable of inputting a composite video signal of a different system with different frequency of a color burst signal, for converting an inputted composite video signal as an analog signal to a composite video signal as a digital signal by sampling with a sampling frequency in accordance with a system clock;

10 video signal processing means for executing a YC separation process for separating a luminance signal and a chroma signal from said composite video signal as said digital signal, and a chroma demodulation process for demodulating said chroma signal obtained by said YC separation process,

15 at a predetermined timing based on said system clock; and

system clock generating means for generating said system clock synchronized with said color burst signal extracted from said composite video signal, and configured to change and set a coefficient n in accordance with a system of said

20 composite video signal inputted to said video signal processing means so as that a frequency m falls in a predetermined range between said different systems, in a case where a frequency of said color burst signal is defined as f_{sc} , a coefficient is defined as n , and a frequency m of said

25 system clock is represented by $f_{sc} \times n = m$.

2. The video signal processing circuit according to claim 1 is characterized by comprising:

low pass filter means, in which a cut off frequency

30 is set in accordance with said sampling frequency at said analog/digital converting means, for passing said inputted

composite video signal as an analog signal through a band under said cut off frequency to output to said analog/digital converting means.

- 5 3. The video signal processing circuit according to claim 1 is characterized by comprising:

low pass filter means, to which said composite video signal as a digital signal outputted from said analog/digital converting means are inputted, for passing said inputted
10 composite video signal through a band under a predetermined cut of frequency to output at least to said video signal processing means.

4. The video signal processing circuit according to claim
15 1 is characterized by comprising:

a determination circuit for determining said system of said composite video signal to be inputted, based on a state of synchronization with said color burst extracted from said composite video signal if said system clock frequency
20 is switched; and

signal switching means for outputting a composite video signal after conversion to said digital signal by said analog/digital converting means, instead of said luminance signal obtained by said video signal processing means, during
25 said determination operation is executed by said determination circuit.

5. The video signal processing circuit according to claim 1 is characterized in that:

30 said imaging signal processing means is configured to execute an operation based on a system clock frequency

represented by $fsc \times a$, where a frequency of a color burst signal is defined as fsc and a coefficient is defined as a (a relation between said coefficient a and said coefficient n is $a < n$); and

5 decimating sample means is provided at a previous stage of said imaging signal processing means, for executing a sampling process on said inputted composite video signal as a digital signal based on a decimating rate determined by a relation between said coefficient a and said coefficient
10 n.

6. The video signal processing circuit according to claim 1 is characterized in that:

15 said system clock generating means is capable of generating a system clock of a frequency b different from a frequency m a corresponding to a component signal;

and further comprising

20 analog/digital inverting means corresponding to said component signal, which is provided every predetermined number of signals forming said component signal, for converting an inputted composite video signal as an analog signal to an composite video signal as a digital signal by sampling with a sampling frequency in accordance with a system clock of said frequency b; and

25 low pass filter means corresponding to a component signal, which is provided at a previous stage of said analog/digital inverting means corresponding to a component signal, for passing an inputted signal through a band under a cut off frequency set based on a sampling frequency of said
30 analog/digital inverting means corresponding to a component signal;

wherein said coefficient n is set so that a system clock having a frequency m generated by said system clock generating means has a frequency difference falls in a predetermined range with respect to said frequency b .

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7. A video signal processing method is characterized by comprising:

an analog/digital converting process, which is capable of inputting a composite video signal of a different system with different frequency of a color burst signal, for converting said inputted composite video signal as an analog signal to a composite video signal as a digital signal by sampling with a sampling frequency in accordance with a system clock;

15 a video signal processing process for executing a YC separation operation for separating a luminance signal and a chroma signal from said composite video signal as said digital signal, and a chroma demodulation operation for demodulating said chroma signal obtained by said YC separation process, at a predetermined timing based on said system clock; and

a system clock generating process for generating said system clock synchronized with said color burst signal extracted from said composite video signal, and configured to change and set a coefficient n in accordance with a system of said composite video signal inputted to said video signal processing means so as that a frequency m falls in a predetermined range between said different systems, in a case where a frequency of said color burst signal is defined as f_{sc} , a coefficient is defined as n , and a frequency m of said system clock is represented by $f_{sc} \times n = m$.

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